Remarks

Reconsideration is requested in view of the above amendments and the following remarks. Claims 45 and 46 are amended. Claims 1-10, 13-21, 23-42, and 44-51 are pending.

Applicants would like to thank the Examiner for the personal interviews conducted on July 31, 2003 and again on November 7, 2003 with Applicant's representative, John Gresens. During the July 31, 2003 interview, Applicant's representative explained why the 35 USC 101 rejection was inapplicable, and explained why the claims are patentable over Burkart et al. (CA 2,073,092), Gofuku et al. (US 5,269,868), and Muncheryan (US 4,808,789). The Examiner indicated that she was relying to some extent on the decision rendered by the Board of Patent Appeals and Interferences in application 09/133,854 as a basis on which to continue to reject the claims. Further, the Examiner indicated that she is rejecting the claims under 35 USC 101 because many of the claim elements in the current application and in application 09/184,186 (hereinafter "the '186 application") are functionally equivalent. No agreement was reached concerning the allowability of any claims during the July 31, 2003 interview.

During the November 7, 2003 interview, Applicant's representative again explained why the 35 USC 101 rejection was inapplicable, and explained why the claims are patentable over Burkart et al. (CA 2,073,092), Gofuku et al. (US 5,269,868), and Muncheryan (US 4,808,789). As indicated in the Interview Summary form produced by the Examiner after this interview (Paper No. 25), claims 1, 21, 45, and 46 appear to be allowable pending further searching by the Examiner.

35 USC 101 rejection

Turning now to the office action, claims 1-10, 13-18, 21, 23-25, 30-34, 38-41 and 45-46 are provisionally rejected under 35 USC 101 as claiming the same invention as that of claims 1-7, 10-32 and 48 of the '186 application. Applicants respectfully traverse this rejection.

Statutory double patenting can exist between two copending applications. To constitute statutory double patenting, the same invention must be claimed twice. MPEP 804(II)(A), Original 8th Ed., Rev. 1, Feb. 2003. "Same invention" means identical subject matter is being

claimed. Miller v. Eagle Mfg. Co., 151 U.S. 186 (1984). It is the claims that must be compared to determine whether the "same invention" is being claimed twice. Except for defining the meaning of claim terms, the description of the invention in each application or what is known in the art is not relevant to a statutory double patenting analysis. Instead, these factors are only relevant in an obviousness, or non-statutory, double patenting analysis.

The current application contains independent claims 1, 21, 45, 46, 47, and 48. Claims 47 and 48 have not been rejected for double patenting. It is therefore only necessary to determine whether the subject matter of claims 1, 21, 45 and 46 is identically claimed in the '186 application. If not, then statutory double patenting does not exist.

In the current application, claim 1 recites "...to inhibit a following light pulse event if the time elapsing after a preceding light pulse event is less than a predetermined time or greater than a predetermined time". This feature is not recited in any claim of the '186 application. Therefore, statutory double patenting cannot exist with respect to claim 1.

In the office action, the Examiner argues that the claims in the '186 application recite a pulsed light event. Applicants respectfully submit that the Examiner has misconstrued the above-cited language in claim 1. The language in claim 1 is not simply reciting pulsed light. Claim 1 recites controlling the light pulses such that a light pulse is not permitted if the time elapsing after a preceding light pulse event is less than a predetermined time or the time elapsing after a preceding light pulse event is greater than a predetermined time. The advantages of this type of control are disclosed at page 5, line 29 to page 6, line 3, and at page 6, lines 17 to 22.

This type of control is simply not recited in any claim of the '186 application. At least one claim (claim 29) in the '186 application recites controlling the minimum permissible time between subsequent pulses. However, no claim in the '186 application recites preventing a light pulse if the time is greater than a predetermined time.

As a result, claim 1 is not claimed in the '186 application, and statutory double patenting does not exist.

In the current application, claim 21 recites, among other features, a base unit and a flexible umbilical extending between the base unit and the delivery head. At least these features

are not recited in any claim of the '186 application. As a result, claim 21 is not claimed in the '186 application, and statutory double patenting does not exist with respect to this claim.

In the current application, claim 45 recites, among other features, "a flashlamp". At least this feature is not recited in any claim of the '186 application. As a result, claim 45 is not claimed in the '186 application, and statutory double patenting does not exist with respect to this claim.

In the current application, claim 46 recites, among other features, "a flashlamp". At least this feature is not recited in any claim of the '186 application. As a result, claim 46 is not claimed in the '186 application, and statutory double patenting does not exist with respect to this claim.

For at least these reasons, the current claims are not claiming the "same invention" as any claim in the '186 application. Withdrawal of the rejection is requested.

35 USC 103(a) rejection

The Examiner has also rejected claims 1-10, 13-21, 23-42, and 44-51 under 35 USC 103(a) as being unpatentable over Burkart et al. (Canada 2,073,092) in view of Gofuku et al. (US 5,269,868) and Muncheryan (US 4,808,789). Applicants respectfully traverse this rejection.

Claims 1-10 and 13-20

Claim 1 is an independent claim, with claims 2-10 and 13-20 depending thereon. If claim 1 is found allowable, any claim depending thereon is allowable as well. Therefore, only independent claim 1 need be addressed at this time. By not separately addressing dependent claims 2-10 and 13-20, Applicant's are not conceding the rejection thereto, and Applicant's reserve the right to file arguments at a later date specifically addressing one or more of the dependent claims.

With respect to claim 1, this claim recites a method of releasing a glazing panel from a frame. The method includes arranging a pulsable light energy delivery apparatus adjacent the panel, and operating the delivery apparatus to transmit pulsed light energy comprising at least

one light pulse event through the glazing panel to effect release of the panel from the frame. The delivery apparatus is controlled to inhibit a following light pulse event if the time elapsing after a preceding light pulse event is less than a predetermined time or greater than a predetermined time.

Burkart et al., Gofuku et al. and Muncheryan do not teach or suggest a light delivery apparatus that is controlled to inhibit a following light pulse event if the time elapsing after a preceding light pulse event is less than a predetermined time or greater than a predetermined time.

During the above-referenced July 31, 2003 interview, the Examiner indicated some measure of reliance on the Board of Appeals decision rendered in 09/133,854. However, the two claims (i.e. claims 1 and 17) specifically at issue in that application and claim 1 at issue here, are entirely different.

Specifically, claims 1 and 17 of application 09/133,854 recited:

> 1. A method of releasing an architectural or vehicular window pane from a supporting frame to which the window pane is bonded by interposed homogenous bonding material, the method comprising the steps of
> (a) arranging light energy delivery means adjacent the window pane; and
> (b) transmitting light energy from the light energy delivery means through material comprising the window pane thereby to:
> i) cause degradation of material comprising the homogenous bonding material, and/or
> ii) cleavage or degradation of material comprising the window pane, thereby to effect release of the window pane from the frame.
>
> 17. A method of releasing an architectural or vehicular window pane from a supporting frame to which the window pane is bonded by interposed homogenous bonding material, the method comprising the steps of:
> (a) arranging light energy delivery means adjacent the window pane;
> (b) transmitting light energy from the light energy delivery means through material comprising the window pane thereby to effect localised release of the window pane from the frame in the region of transmission of the light energy; and
> (c) tracking the light delivery means about the periphery of the window pane thereby to effect complete release of the window pane from the frame.

In contrast, instant claim 1 recites the use of pulsed light energy. Pulsed light energy was not recited in claims 1 and 17 of 09/133,854 and were not part of the decision by the Board of Appeals. In addition, instant claim 1 recites controlling the light delivery apparatus so as to inhibit a following light pulse event if the time elapsing after a preceding light pulse event is less than a predetermined time or greater than a predetermined time. This feature was not recited in claims 1 and 17 of 09/133,854 and was not part of the decision by the Board of Appeals.

As a result, even if the reasoning of the Board of Appeals in 09/133,854 is followed, the decision has little relevance because instant claim 1 recites features that were not at issue in 09/133,854.

Burkart et al., Gofuku et al. and Muncheryan have been discussed in Applicant's previous response. Applicant's previous arguments, which will not be repeated for sake of brevity, are incorporated herein. Even if these references are combined, which Applicant's submit is not proper, the invention recited in claim 1 does not result. In particular, Burkart et al., Gofuku et al., and Muncheryan do not teach inhibiting a following light pulse event if the time elapsing after a preceding light pulse event is less than a predetermined time or greater than a predetermined time. The advantages of controlling the light pulses in this fashion is discussed at page 5, line 29 to page 6, line 3, and at page 6, lines 17 to 22.

Muncheryan does mention the use of short pulses (col. 3, lines 29-30). If one concludes from this that a light pulse in Muncheryan is inhibited until a predetermined time period after a preceding light pulse event has elapsed, this still does not teach or suggest inhibiting a light pulse event if the time elapsing after a preceding light pulse event is greater than a predetermined time.

Therefore, even if Burkart et al., Gofuku et al. and Muncheryan are combined, the claimed invention does not result. Therefore, claim 1 is patentable over Burkart et al., Gofuku et al. and Muncheryan.

Further, Muncheryan is relied upon by the Examiner to teach the use of pulsed light energy. In 09/133,854, the Board of Appeals indicated that the prior art must provide one of ordinary skill in the art with both a motivation to carry out the claimed invention and a reasonable expectation of success in doing so. Further, the Board indicated that a reference is

analogous art if it is one which logically would have commanded itself to the inventor's attention in considering the inventor's problem. The Board concluded that Burkart et al. and Gofuku et al. did provide the necessary motivation and were analogous art because they each are directed toward releasing glass substrates which are bonded to a surface by an adhesive. However, applying the same reasoning utilized by the Board, it is clear that Muncheryan is not combinable with Burkart et al. and Gofuku et al., and is not analogous art.

Burkart et al. and Gofuku et al. do not teach using pulsed light energy. Muncheryan discloses a laser system for use in industrial materials processing, spectroscopy, medical surgery, metrology, fiberoptic communication, and related research work in a scientific laboratory (see abstract). There is no disclosure in Muncheryan of using the laser system to release glass substrates. Nor is there any disclosure of using pulsed laser energy to reduce heat build-up in a glass substrate.

As described in Applicant's specification, the use of continuous energy results in excessive heat build-up within the body of the panel 16, which increases the power required and results in glass fracture (page 12, lines 15-29). By using pulsed light energy, sufficient energy can be delivered to achieve separation, while avoiding detrimental heat build-up in the panel 16 (page 13, lines 9-14).

The laser system in Muncheryan is not disclosed as being used for releasing glass substrates from a surface, nor does it disclose any advantage associated with using pulsed light energy in removing a glazing panel from a frame. As a result, there is no motivation to combine its teachings with those of Burkart et al. and Gofuku et al., nor is there a reasonable expectation of success by doing so. Moreover, as Muncheryan is silent concerning the release of glass substrates, and is silent concerning the use of pulsed light energy to prevent heat build-up during removal of the substrate, Muncheryan would not have logically commanded itself to the inventor's attention in considering the inventor's problem. Therefore, Muncheryan is not analogous art, and is not properly combinable with Burkart et al. and Gofuku et al. Muncheryan is only combinable through the use of impermissible hindsight after reading Applicant's disclosure.

Claims 21, 23-42 and 44

Claim 21 is an independent claim, with claims 23-42 and 44 depending thereon. If claim 21 is found allowable, any claim depending thereon is allowable as well. Therefore, only independent claim 21 need be addressed at this time. By not separately addressing dependent claims 23-42 and 44, Applicant's are not conceding the rejection thereto, and Applicant's reserve the right to file arguments at a later date specifically addressing one or more of the dependent claims.

With respect to claim 21, this claim recites apparatus for releasing a glazing panel from a frame. The apparatus includes a light energy delivery head that includes an electrically operable light emitting element that is operable to transmit non-laser, pulsed light comprising at least one light pulse event. The apparatus also includes a base unit with a supply of electrical power remote from the delivery head, and a flexible umbilical extending between and connecting the base unit and the delivery head.

Burkart et al., Gofuku et al. and Muncheryan do not teach or suggest the invention recited in claim 21.

Here again, reliance upon and following of the reasoning of the Board of Appeals in 09/133,854 is not proper, as claim 21 recites features, namely a light emitting element in the light energy delivery head operable to transmit non-laser, pulsed light, a base unit and a flexible umbilical, that were not at issue in claims 1 and 17 in application 09/133,854.

Burkart et al., Gofuku et al. and Muncheryan have been discussed in Applicant's previous response. Applicant's previous arguments, which will not be repeated for sake of brevity, are incorporated herein. Even if these references are combined, which Applicant's submit is not proper, the invention recited in claim 21 does not result. In particular, Burkart et al., Gofuku et al., and Muncheryan do not teach a light energy delivery head that includes an electrically operable light emitting element, and a base unit remote from the delivery head.

The Examiner appears to be relying upon Figure 4 of Muncheryan to teach the claimed light delivery head, the base unit and the flexible umbilical. However, in Figure 4 of

Muncheryan, the light emitting element 51 of the system is disposed in the section 41, with the light energy therefrom being directed to the stylus 40 through the conduit 42 (col. 6, lines 24-64). Thus, the light emitting element is not disposed in the stylus, as is required by claim 21.

Further, claim 21 recites a light emitting element that is operable to transmit non-laser, pulsed light energy. Muncheryan is relied upon by the Examiner to teach the use of pulsed light energy.

In 09/133,854, the Board of Appeals indicated that Gofuku et al. teaches that energy beams other than lasers can be used. However, even though Muncheryan does disclose the use of short pulses (col. 3, lines 29-30), Muncheryan does so only with respect to lasers. Muncheryan does not teach pulsing non-laser light energy, or any advantages that arise from the use of non-laser, pulsed light energy. The advantages include reducing heat build-up, minimizing health and safety risks through rapid attenuation of the energy with distance, and reducing costs (page 12, line 15 to page 13, line 7; page 13, lines 22-25).

Since Muncheryan is limited to pulsed laser energy, there is no motivation to combine its teachings with those of Burkart et al. and Gofuku et al., nor is there a reasonable expectation of success by doing so. Moreover, as Muncheryan is silent concerning the release of glass substrates, and is silent concerning the use or advantages of non-laser pulsed light energy during removal of the substrate, Muncheryan would not have logically commanded itself to the inventor's attention in considering the inventor's problem. Therefore, Muncheryan is not analogous art, and is not properly combinable with Burkart et al. and Gofuku et al. Muncheryan is only combinable through the use of impermissible hindsight after reading Applicant's disclosure.

Therefore, even though the Board of Appeals in 09/133,854 indicated that Gofuku et al. is not limited to laser energy, there is no teaching in any of the cited art that the non-laser energy beams suggested by Gofuku et al. are to be pulsed.

Claims 45 and 46

Claims 45 and 46 are each independent, with no claims depending therefrom.

With respect to claims 45 and 46, claim 45 recites a method of releasing a glazing panel that includes, among other features, directing at least one non-laser light output pulse from a non-laser flashlamp via an optical delivery head, and claim 46 recites a glazing panel releaser that includes, among other features, at least one non-laser flashlamp operable to produce light in the form of at least one non-laser light pulse.

Burkart et al., Gofuku et al. and Muncheryan do not teach or suggest the invention recited in claim 45 or claim 46.

Here again, reliance upon and following of the reasoning of the Board of Appeals in 09/133,854 is not proper, as claims 45 and 46 recite features, namely directing light from a non-laser flashlamp (claim 45) and a non-laser flashlamp (claim 46), that were not at issue in 09/133,854.

Burkart et al., Gofuku et al. and Muncheryan have been discussed in Applicant's previous response. Applicant's previous arguments, which will not be repeated for sake of brevity, are incorporated herein. Even if these references are combined, which Applicant's submit is not proper, the inventions recited in claim 45 and claim 46 do not result. In particular, Burkart et al., Gofuku et al., and Muncheryan do not teach a method of releasing a glazing panel using non-laser light output from a non-laser flashlamp or a glazing panel releaser having at least one non-laser flashlamp.

Non-laser, flashlamp produced light has considerable advantages over the types of light generated in the systems disclosed in Burkart et al., Gofuku et al. and Muncheryan. For example, the use of non-laser, flashlamp produced light ensures that the light energy attenuates rapidly with distance such that at a few centimeters from the energy delivery head, light energy is significantly diminished from its maximum value (see, e.g., page 5, lines 17-27). This results in operational and health and safety benefits in that the energy delivered is sufficient to effect debonding at the glazing panel/bonding material interface, but diminishes in intensity rapidly to prevent damage to interior vehicle trim of the vehicle, as well as ameliorating danger to operatives using the equipment through misuse or accidental actuation (see, e.g., page 13, lines 9-25 and page 22, lines 7-12). In contrast, other light systems, for example lasers, produce

serious health and safety implications, and have other drawbacks such as being relatively expensive (see, e.g., page 13, lines 3-7).

Although the Board of Appeals in 09/133,854 indicated that Gofuku et al. teaches that energy beams other than lasers can be used, Gofuku et al. does not identify specific types of alternative light energy. Gofuku et al. certainly does not explicitly disclose a non-laser flashlamp, or any of the advantages that arise from using such a light energy source.

Thus, since Burkart et al., Gofuku et al. and Muncheryan individually do not teach or suggest the use of non-laser, flashlamp light, the proposed combination does not result in the invention of claim 45 or claim 46. Burkart et al., Gofuku et al. and Muncheryan are only combinable through the use of impermissible hindsight after reading Applicant's disclosure.

Claim 47

Claim 47 is an independent claim, with claim 49 depending therefrom. If claim 47 is found allowable, any claim depending thereon is allowable as well. Therefore, only independent claim 47 need be addressed at this time. By not separately addressing dependent claim 49, Applicant's are not conceding the rejection thereto, and Applicant's reserve the right to file arguments at a later date specifically addressing one or more of the dependent claims.

Claim 47 recites a glazing panel releaser for releasing a glazing panel from a frame. The glazing panel releaser includes, among other features, a safety input apparatus requiring at least two input devices to be manually actuated before light energy is delivered by the glazing panel releaser.

The rejection does not discuss this feature, explain which reference teaches this feature, or explain why such a feature would be obvious from the prior art. As a result, Applicant's respectfully submit that the Examiner has not presented a sufficient prima facie case of obviousness. Applicant's request that, if the Examiner continues to reject claim 47, that the Examiner specifically identify the prior art that is being relied upon to reject this claim, and identify where the features recited in claim 47 are disclosed in the prior art.

Burkart et al., Gofuku et al., and Muncheryan are silent with respect to two input devices as recited in claim 47. The cited references, individually or in combination, fail to teach or suggest a safety input apparatus with at least two input devices that are manually actuated before light energy is delivered.

Claim 47 is patentable over the cited prior art.

Claim 48

Claim 48 is an independent claim, with claims 50 and 51 depending therefrom. If claim 48 is found allowable, any claim depending thereon is allowable as well. Therefore, only independent claim 48 need be addressed at this time. By not separately addressing dependent claims 50 and 51, Applicant's are not conceding the rejection thereto, and Applicant's reserve the right to file arguments at a later date specifically addressing one or more of the dependent claims.

Claim 48 recites a glazing panel releaser for releasing a glazing panel from a frame. The glazing panel releaser includes, among other features, a control panel apparatus that includes different settings which are switchable to alter at least one parameter of the pulsed light energy delivered.

The rejection does not discuss this feature, explain which reference teaches this feature, or explain why such a feature would be obvious from the prior art. As a result, Applicant's respectfully submit that the Examiner has not presented a sufficient prima facie case of obviousness. Applicant's request that, if the Examiner continues to reject claim 48, that the Examiner specifically identify the prior art that is being relied upon to reject this claim, and identify where the features recited in claim 48 are disclosed in the prior art.

In addition, as discussed in more detail above with respect to claim 1, Burkart et al., Gofuku et al., and Muncheryan are not combinable, as there is no suggestion in Burkart et al. or Gofuku et al. to pulse light. Therefore, there is no reason to turn to Muncheryan for a teaching of using pulsed light energy.

However, even if combined, the invention recited in claim 48 does not result. The cited references do not teach a control panel apparatus that includes different settings which are switchable to alter at least one parameter of the pulsed light energy delivered. Burkart et al. and Gofuku et al. do not teach alteration of any parameter of the light energy. Muncheryan does not teach a control panel apparatus that includes different settings as claimed. Therefore, the combination of references does not teach this feature.

Claim 48 is patentable over the cited prior art.

All pending claims are patentable over Burkart et al., Gofuku et al. and Muncheryan. Withdrawal of the rejection is requested.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request favorable action on this matter. If a telephone conference would be helpful in resolving any remaining issue in this application, the Examiner is invited to contact the undersigned by telephone at the number provided below.

Respectfully submitted,

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Date: 1/7/03

By _____
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